

ABSTRACT

A silicon carbide based porous material (1) containing silicon carbide particles (2) as an aggregate and metallic silicon (3) as a bonding material and having a number of pores (5) formed by them, characterized in that it has an oxide phase (4) in at least a part of the pore (5), and the oxide phase (4) contains respective oxides of silicon, aluminum and an alkaline earth metal and contains substantially no alkaline earth metal silicate crystal phase; a method for producing the above porous material; and a honeycomb structure comprising the silicon carbide based porous material. The above porous material is capable of effectively inhibiting the corrosion by an acid (especially acetic acid) used in the operation of carrying a catalyst, that is, is improved in the resistance to an acid.